PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference Bg 033 p-PCT	FOR FURTHER ACTION	See Form PCT/IPEA/416		
International application No.	International filing date (day/month/year)	Priority date (day/month/year)		
PCT/EP2004/006708	22.06.2004	23.06.2003		
		25.00.2005		
International Patent Classification (IPC) or nation	onal classification and IPC			
		4-		
Applicant BUGA TECHNOLOGIES GMBH				
This report is the international prelin under Article 35 and transmitted to the		nis International Preliminary Examining Authority		
2. This REPORT consists of a total of	7 sheets, inclu	ding this cover sheet.		
3. This report is also accompanied by A	NNEXES, comprising:			
a. (sent to the applicant and	to the International Bureau) a total of 6	sheets, as follows:		
		en amended and are the basis for this report and/or		
sheets containing re Instructions).	sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative			
	sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental			
b (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))				
related themses in a surroute	- madable form only as indicated in the Co	, containing a sequence listing and/or tables		
	related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).			
4. This report contains indications relati	ng to the following items:			
Box No. I Basis of the	report			
Box No. II Priority				
Box No. III Non-establi	shment of opinion with regard to novelty, in	ventive step and industrial applicability		
	ty of invention			
		novelty, inventive step or industrial applicability;		
	d explanations supporting such statement			
Box No. VI Certain doc	cuments cited			
Box No. VII Certain def	ects in the international application			
Box No. VIII Certain obs	servations on the international application			
Date of submission of the demand	Date of completion of	of this report		
		•		
Name and mailing address of the IPEA/EP	Authorized officer			
	1			
Facsimile No.	Telephone No.			

Translation

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/006708

Box	No. I		Basis of the report		
1.			to the language, this report is based on the internation der this item.	nal application in the language in	which it was filed, unless otherwise
			eport is based on translations from the original language is the language of a translation furnished for the purpo		,
		\vdash	international search (Rule 12.3 and 23.1(b))		
			publication of the international application (Rule 12.4)		
			international preliminary examination (Rule 55.2 and/o		
2.	recei	iving O, report):	to the elements of the international application, this in ffice in response to an invitation under Article 14 are ternational application as originally filed/furnished		
	\boxtimes	the de	escription:		
		pages	1-14		as originally filed/furnished
		pages	*	received by this Authority on	
		pages	*	received by this Authority on	
	X	the cla	aims:		
		nos.			as originally filed/furnished
		nos.*		as amended (togethe	r with any statement) under Article 19
		nos.*	1-18		25.04.2005 with letter
	\square	nos.*		received by thus Additionly on	
			awings:		
		sheets			
		sheets	*	received by this Authority on	
		sheets	*	received by this Authority on	
	Ш	a sequ	uence listing and/or any related table(s) – see Supplem	ental Box Relating to Sequence L	isting.
3.		The a	mendments have resulted in the cancellation of:		
			the description, pages		<u></u>
			the claims, nos.		·
			the drawings, sheets/figs		
			the sequence listing (specify):		
Į			any table(s) related to sequence listing (specify):		
4.			report has been established as if (some of) the amend have been considered to go beyond the disclosure as fil		
			the description, pages		
			the claims, nos.		
			the drawings, sheets/figs		
			the sequence listing (specify):		
			any table(s) related to sequence listing (specify):		
*	If ite	ет 4 ар	plies, some or all of those sheets may be marked "sup	erseded."	

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International application No.
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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement			
1.	Statement		
	Novelty (N) Claims 1-18	_ YES
		Claims	_ NO
Inventive step (IS) Claims 1-18		step (IS) Claims 1-18	YES
		Claims	
Industrial applicability (IA)		applicability (IA) Claims 1-18	YES
		Claims	
2.	Citations and	d explanations (Rule 70.7)	
2.	1.	This report makes reference to the following	
	Τ•	documents:	
		documents.	
		D1: DE 101 63 355 C (SCHLIESANLAGEN GMBH)	
		13 March 2003	
		D2: DE 199 19 283 A (DOM SICHERHEITSTECHNIK)	
		9 December 1999	
		D3: DE 196 O3 320 A (UHLMANN GUENTER)	
		7 August 1997	
		D4: EP-A-0 243 586 (HERZ GMBH) 4 November 1987	
		D5: WO 02/088492 A (KABA GEGE GMBH)	
		7 November 2002	
	2.	INDEPENDENT CLAIM 1	
	2.1	Independent claim 1 pertains to an	
		electromechanical lock cylinder which has two	
		opposing lock cores or knob shafts.	
	2.2	D1 (cf. column 6, line 14 to column 7, line 59;	
		figures $1-5$), which is considered to represent the	
		prior art closest to the subject matter of claim	
		1, discloses (the references in parentheses are to	
1			

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

this document):

an electromechanical lock cylinder (1) which cooperates with an evaluating electronics system (14) for recognizing an access authorization and has a housing (2) which encloses two opposing cylindrical recesses, in each of which a lock core (3, 3') which is actuable by a key (5) is rotatably mounted, wherein the lock cores (3, 3') cooperate with a lock lug (12) which actuates, in particular, a bolt or latch of a door lock and if the key (5) fits or in the event of successful access authorization an electromechanically driven blocking or coupling element (19) is displaced from the neutral position (figure 2) to an active position (figure 5) and a connection which rotates in unison is produced between the key (5) and the lock lug (12), while, when the blocking or coupling element (19) is in the neutral position (figure 2), the lock lug (12) is freely rotatable relative to the two lock cores (3, 3').

The subject matter of claim 1 thus differs from D1 in that:

• the blocking or coupling element (14) is arranged on or in the lock core or on or in the knob shaft (11) and rotates together with said lock core or knob shaft and comprises an electric drive (23) with an eccentric (15, 16) which moves a dog (19) between the neutral

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position and the

 active position in which said dog engages with a recess (28) of the lock lug (13) or of a rotary sleeve (35) on which the lock lug is arranged.

Therefore, the subject matter of claim 1 is novel (PCT Article 33(2)).

The problem addressed by the present invention may therefore be considered that of designing a lock cylinder of the initially indicated type such that a flexible arrangement of rotary knobs or lock cores with or without a key is made possible (cf. page 3, paragraph 2) and wherein the manufacturing cost of the electromechanical lock cylinder is low.

The solution to this problem proposed in claim 1 of the present application involves an inventive step (PCT Article 33(3)). The reasons are:

Although in D5 (cf. figures 1-7) an electric drive (5) with an eccentric (6, 7) is provided and a blocking pin (8) can be displaced between a release position of the lock core (4) and a blocking position (figure 1), the drive (5) and the blocking pin (8) in D5 are arranged in the cylinder housing, not in the locking core.

Proceeding from D1 as the closest prior art, to add the features of the eccentric arrangement as

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per D5 to the lock cylinder described in D1, thereby arriving at a lock cylinder as per claim 1, without having to undertake a major redesign of the lock cylinder described in D1 would not be obvious to a person skilled in the art, since, in particular, the electromagnet (15) described in D1 is not arranged in the lock core (3, 3') but in a housing (13) in the locking recess (9) which is rotatably mounted on a bushing (11) of the locking part (10) (cf. column 5, lines 30-34; figure 2).

Further, a person skilled in the art also receives no inducement to combine the two documents (D1 and D5), since, in particular, D1 describes a coupling device, whereas D5 pertains to a blocking device.

Therefore, the subject matter of claim 1 involves an inventive step (PCT Article 33(3)) over the cited prior art (cf. D1-D5).

4. INDEPENDENT CLAIMS 3 AND 5

Claim 3 pertains to an electromechanical lock cylinder which has a knob shaft and a lock core.

Claim 5 pertains to an electromechanical lock cylinder which has a single knob shaft or a single lock core.

The characterizing features of independent claims 3 and 5 are identical with the characterizing features of independent claim 1 and therefore

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	claims 3 and 5 likewise meet the PCT requirements
	for novelty and inventive step.
5.	Claims 2, 4 and 6-18 are dependent on claims 1, 3
	or 5 and therefore likewise meet the PCT
	requirements for novelty and inventive step.
6.	INDUSTRIAL APPLICABILITY
	Claims 1-18 are industrially applicable (PCT
	Article 33(4)) in the field of locking technology.